

**APPLICATION  
FOR  
UNITED STATES LETTERS PATENT**

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## **ORDER STATUS ON-DEMAND AGENT**

### **BACKGROUND OF THE INVENTION**

#### **Field of the Invention**

[0001] This invention generally relates to methods and systems for providing and receiving information about requisition orders. More specifically, the invention relates to a procedure for using instant messaging to provide and receive such information over the Internet or other computer network.

#### **Background Art**

[0002] The Internet provides enormous opportunities for businesses, both for dealing with customers and clients and also for conducting internal operations. For example, requisitioning systems have been developed that allow businesses to use the Internet to prepare and process purchase or requisition orders that, if approved, are sent to suppliers.

[0003] In a requisition system, it is desirable that the individual who has submitted a purchase request or order have continuous, timely access to the status of the order. One challenge for an Internet based requisitioning system is to provide this access. This challenge is complicated by the fact that, in an Internet based system, a requisition order may be acted upon by a number of people in different parts of the world.

[0004] One way to provide status access is to use a Web interface. There are, though, a number of disadvantages to this approach. One important disadvantage is that, to use a Web based solution, the user must log on to the Web site, go through the profile creation process, navigate through the Web site to a search section, and then search for their order. This is time consuming and can be complicated or difficult for some users.

### **SUMMARY OF THE INVENTION**

[0005] An object of this invention is to provide an improved method and system for providing the status of requisition orders.

[0006] Another object of the invention is to provide quickly and concisely to an end user the status of requisition orders and other information about their orders.

[0007] A further object of the present invention is to provide an Internet based solution that is quick, simple and easy to user for giving users access to the status of requisition orders.

[0008] These and other objectives are attained with a method and system for providing information about a requisition order. In the method an automated agent is provided for receiving and identifying a set of inquiries, and for each identified inquiry, preparing an associated response. A user transmits to the agent one of said set of inquiries, and the agent identifies the transmitted inquiry and prepares the associated response. An instant messaging system is used to send said associated response from the agent to the user.

[0009] The preferred embodiment of the invention, described in detail below, may be used to provide to the end user a status of orders and other information about their order quickly and concisely. Important advantages of using this rather than conventional web based solutions are the speed, simplicity and ease of use of this solution.

[0010] Further benefits and advantages of the invention will become apparent from a consideration of the following detailed description, given with reference to the accompanying drawings, which specify and show preferred embodiments of the invention.

#### BRIEF DESCRIPTION OF THE DRAWINGS

[0011] Figure 1 schematically illustrates a system embodying this invention.

[0012] Figure 2 shows a computer workstation that may be used in the system of Figure 1.

## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

**[0013]** The present invention provides on demand order status using instant messaging. More specifically, with reference to Figure 1, the invention relates to a method and system, using instant messaging, represented at 12, that provides information about requisition orders, represented at 14, that have been prepared and submitted a part of a requisitioning system, represented at 16.

**[0014]** In this invention, an automated agent 20 is created that has an identification that users, represented at 22, of the instant messaging system can add to their instant messaging address lists. The user can open a chat session with this agent, via the Internet 24, to learn of the status of, and other information about, the requisition order.

**[0015]** Instant messaging systems (IMs) provide for instant, real-time communication between users who are connected to the system through an on-line or electronic networking environment. Examples of IMs include Sametime, Yahoo! Messenger, and AOL Instant Messenger. ("Sametime" is a trademark of Lotus Development Corporation, "Yahoo" is a registered trademark of Yahoo! Inc., and AOL Instant Messenger is a service mark of America Online, Inc.) Such systems are becoming quite popular among users of networks such as the Internet, World Wide Web, and internal intranets because they are easy to use and provide a simple way for one user to send a message to another user.

**[0016]** IMs provide real-time awareness of who is logged on. Typically, an IM user has an address book containing names or nicknames for those people with whom he or she communicates. The entries in this address book are used for selecting a message recipient. The IM typically indicates, using a visual cue (such as different icons or different fonts), which of the people are logged on to the system and which are not. For a message to be sent from a sending user to a receiving user, both users must be currently logged on to an IM (which may be the same IM, or a different IM). Otherwise the system will not allow the sender to send the message. By ensuring that the receiver is available when a message is sent to him or her, the message can be delivered and presented to the recipient nearly instantly (depending on network delay).

**[0017]** In the present invention, a user 22 can initiate a chat session with agent 20 and ask questions about the status of a requisition order 14 and other questions about the order. For example, the user may ask: "What is the status of my order: XXXXX?" where XXXXX is the order number. The agent may respond with an answer such as "Your order is awaiting approval," and the agent may provide the address of a Web site where the user can get more information.

**[0018]** Also, a user 22 may ask the agent: "Show my orders." In response, the agent 20 returns to the user a list of order identifications for the user. As another example, the user may ask the agent to "Show the approvers of my order XXXXXX." The agent may respond by sending to the user a list of approvers currently assigned to the order.

**[0019]** An application program interface (API) may be used to connect the agent 20 to the instant messaging system 12 so that the agent is seen as another user of that messaging system, and thus enables the user 22 and the agent 20 to communicate with each other via the instant messaging system. This API may be run on any suitable computer or computer system. In use, this API receives communications from the user 22, via the instant messaging system 12, and forwards those communications to the agent 20. Similarly, the agent sends messages and data to that API, which in turn sends those messages and data to the user 22 via the instant messaging system 12.

**[0020]** In addition, any suitable interface program may be employed to provide agent 20 with access to the requisitioning system 16. For example, this access may be provided by a Java Database Connection (JDBC) application program interface. Agent 20 may send requests for data to, and receive data from, requisitioning system 16 by utilizing such an interface.

**[0021]** In accordance with a second aspect of the invention, agent 20 helps the user 22 create orders through a chat window, eliminating the need to use a Website to create the orders. As an example, the user may enter the message "I want to order business cards." The agent then asks the user "How many?" and the user provides an answer, for example "200."

The agent then asks or prompts the user for any additional needed information, such as their shipping address and accounting information, and then submits the order to the requisitioning system. The agent 20 may communicate with requisitioning system 16 via the Internet 24, or the agent may be directly connected to the requisitioning system, as represented at 26.

**[0022]** As will be understood by those of ordinary skill in the art, user may be provided with any suitable computer or workstation, and Figure 2 illustrates a representative workstation hardware environment that may be used in the practice of this invention. The environment of Figure 2 comprises a representative single user computer workstation 30, such as a personal computer, including related peripheral devices. The workstation 30 includes a microprocessor 32 and a bus 34 employed to connect and enable communication between the microprocessor 32 and the components of the workstation 30 in accordance with known techniques.

**[0023]** The workstation 30 typically includes a user interface adapter 36, which connects the microprocessor 32 via the bus 34 to one or more interface devices, such as a keyboard 38, mouse 40, and/or other interface devices 42, which can be any user interface device, such as a touch sensitive screen, digitized entry pad, etc. The bus 34 also connects a display device 44, such as an LCD screen or monitor, to the microprocessor 32 via a display adapter 46. The bus 34 also connects the microprocessor 32 to memory 48 and long-term storage 50 which can include a hard drive, diskette drive, tape drive, etc.

**[0024]** The workstation 30 may communicate with other computers or networks of computer, for example via a communications channel or modem represented at 52. Alternatively, the workstation 30 may communicate using a wireless interface, such as a cellular digital packet data (CDPD) card. The workstation 30 may be associated with such other computers in a local area network (LAN) or a wide area network (WAN), or the workstation 30 can be a client in a client/server arrangement with another computer, etc. All of these configurations, as well as the appropriate communications hardware and software, are known in the art.

**[0025]** While it is apparent that the invention herein disclosed is well calculated to fulfill the objects stated above, it will be appreciated that numerous modifications and embodiments may be devised by those skilled in the art, and it is intended that the appended claims cover all such modifications and embodiments as fall within the true spirit and scope of the present invention.